Before the
Federal Communications Commission
Washington, D.C. 20554

In the matter of	)	
	)	
Aloha Partners, L.P. Request for	)	FCC File No. 0001777981
Waiver of Section 27.60	)	

MEMORANDUM OPINION & ORDER

Adopted: February 18, 2005 **Released: February 18, 2005**

By the Chief, Wireless Telecommunications Bureau:

I. INTRODUCTION

1. This order addresses a request for waiver (Waiver Request) of section 27.60 of the Commission's rules,[1] filed on June 18, 2004 in association with FCC Form 601, File No. 0001777981, by Aloha Partners, L.P. (Aloha).[2] Section 27.60 sets forth the protection criteria for base, fixed, control and mobile transmitters operating in the 698-764 MHz and 776-794 MHz frequency bands, in order to reduce the potential for interference to public reception of the signals of existing TV and DTV broadcast stations transmitting on TV channels 51 through 68. For the reasons described below, we grant Aloha's Waiver Request, subject to the conditions set forth herein.

II. BACKGROUND

2. Aloha holds a license for the CMA077 (Tucson, Arizona) service area in the Lower 700 MHz "C-Block." Aloha's licensed spectrum is co-channel to TV channels 54 (710-716 MHz) and 59 (740-746 MHz). Aloha proposes to implement broadband service operating on channel 59 from seven base stations within its licensed service area.[3] Although adjacent to channel 58 (734-740 MHz), currently occupied by broadcast station KWBA in nearby Sierra Vista, Arizona, Aloha's proposed stations' operating frequencies are at least 3 MHz removed from the upper edge of KWBA's 6 MHz of channel space.[4] All of Aloha's proposed

[1] 47 C.F.R. § 27.60.

[2] Section 27.60(b) Interference Protection Showing of Aloha Partners, L.P. (filed June 18, 2004) (Waiver Request).

[3] Engineering Study Per 47 C.F.R. § 27.60(b)(1)(iii) at 12 (filed June 18, 2004) (Engineering Study). These base stations on Channel 59 will serve as the "downlink" side of the proposed broadband service. On the "uplink" side, Aloha will deploy mobile stations using its other "C-Block" allocation on channel 54 at 710-716 MHz. Those mobile stations are not at issue here, because they are not co-channel or adjacent channel to any potentially affected incumbent analog broadcaster, including KWBA. *Id.* at 3, Fig. 2. Aloha notes that the proposed ERP for each station and channel is well below the maximum ERP of 50 kW set forth in 47 C.F.R. § 27.50(c). *Id.* at 3-4.

[4] *Id.* at 3, Figure 2. Each site will occupy a fraction of Aloha's 6 MHz channel 59 allocation. Starting from the upper edge of KWBA's channel 58 and from the lower edge of Aloha's channel 59, Aloha proposes one 0.5 MHz guard band, followed by two 1.25 MHz channels that are not proposed here for operation. Then, starting at 3 MHz

(continued....)

transmitters, however, are located too close to KWBA, pursuant to our TV/DTV protection criteria.[5] In fact, all of Aloha's proposed transmitters are located inside the hypothetical Grade B contour of KWBA.[6] Section 27.60(b) of our rules references specific, minimum geographic separations that must be maintained between a 700 MHz licensee's transmitter and an incumbent broadcast station.[7] Additionally, section 27.60(a) requires a minimum desired-to-undesired (D/U) ratio of 0 dB at the hypothetical Grade B contour of an adjacent channel analog TV station such as KWBA.[8]

3. On July 2, 2004, the Wireless Telecommunications Bureau's (Bureau) Mobility Division (Division) sought comment on Aloha's request for waiver.[9] In response, most commenters supported Aloha's request,[10] with the exception of the incumbent analog broadcaster Tucson Communications, LLC (Tucson), and the Association for Maximum Service Television, Inc. (MSTV).[11] After the pleading cycle for comments and reply comments ended on August 17, 2004, Aloha filed a response to MSTV's arguments, together with a motion to file the response.[12] Tucson and MSTV then filed a reply to Aloha's response,[13] and Aloha submitted a rebuttal to

(...continued from previous page)
from the upper edge of channel 58, the two 1.25 MHz channels at issue here fill out Aloha's channel 59, with another 0.5 MHz guard band at the top edge. Engineering Study at 3, Figure 2.

[5] *See* 47 C.F.R. § 27.60(b).

[6] The hypothetical Grade B contour encircles the incumbent broadcast station at a distance of 88.5 km (55 miles). *See* 47 C.F.R. § 27.60(a).

[7] 47 C.F.R. § 27.60(b).

[8] 47 C.F.R. § 27.60(a).

[9] *Wireless Telecommunications Bureau Seeks Comment on Aloha Partners, L.P.'s Request for Waiver of Section 27.60*, Public Notice, DA 04-2022 (WTB MD rel. July 2, 2004).

[10] Comments of Access Spectrum, LLC (filed Aug. 2, 2004) (Access Spectrum Comments); Comments of Corr Wireless Communications, L.L.C. (filed July 19, 2004) (Corr Comments); Comments of Flarion Technologies, Inc. (filed Aug. 2, 2004) (Flarion Comments); Comments of Motorola, Inc. (filed Aug. 2, 2004) (Motorola Comments); Comments of the 700 MHz Advancement Coalition (filed Aug. 2, 2004) (Coalition Comments).

[11] Reply Comments and Informal Objection of the Association for Maximum Service Television, Inc. (filed Aug. 17, 2004) (MSTV Reply Comments); Reply Comments and Informal Objection of Tucson Communications, LLC (filed Aug. 17, 2004) (Tucson Reply Comments). Tucson incorporates MSTV's reply comments and informal objection by reference. Tucson Reply Comments at 1.

[12] Aloha Partners, L.P. Response to Informal Objection and Reply Comments and Motion to File Response (filed Sept. 9, 2004) (Aloha Response to Reply). We note that Aloha argues in its response that the Reply Comments of Tucson and MSTV should not be considered by the Bureau, because they were filed by the reply comments deadline, rather than by the earlier comments deadline. Aloha Response to Reply at 2-3. We reject this argument because the portion of a pleading cycle for reply comments is always available to any party, not just to the petitioner and its supporters.

[13] Tucson Communications, LLC Reply to Response to Informal Objection and Reply Comments and Motion to File Response (filed Sept. 23, 2004) (Tucson Reply to Response); Reply of the Association for Maximum Service Television, Inc. to the Response of Aloha Partners, L.P. (filed Sept. 23, 2004) (MSTV Reply to Response).

MSTV's reply.[14] In the interest of reaching a decision based on the most complete record possible, we will consider these *ex parte* pleadings.[15]

III. DISCUSSION

A. Necessity for Application and Waiver

4. Aloha argued in its initial application and waiver request that its base stations will meet the TV/DTV protection criteria set forth in section 27.60 of the Commission's rules.[16] Specifically, Aloha argued that its associated engineering study, pursuant to section 27.60(b)(1)(iii), would justify each station's proposed geographic "short-spacing" to KWBA that otherwise would violate the required minimum separation.[17] During the pleading cycle, all of the initial commenters argued that a waiver is not necessary when an appropriate engineering showing is made pursuant to section 27.60(b)(1)(iii).[18] After the due date of August 2, 2004 for the initial comments in the present case, the Bureau released an order on August 12, 2004

[14] Rebuttal Comments of Aloha Partners, L.P. (filed Oct. 22, 2004) (Aloha Rebuttal Comments).

[15] Additional *ex partes* were filed pursuant to meetings with, and presentations to, the Commission. *See* Letter from Matthew S. DelNero, counsel for MSTV, to Marlene H. Dortch, Secretary, Federal Communications Commission (filed Nov. 23, 2004); Letter from Thomas Gutierrez, counsel for Aloha, to Marlene H. Dortch, Secretary, Federal Communications Commission (filed Dec. 16, 2004); Letter from Matthew S. DelNero, counsel for MSTV, to Marlene H. Dortch, Secretary, Federal Communications Commission (filed Dec. 21, 2004); Letter from David L. Donovan, MSTV, to Marlene H. Dortch, Secretary, Federal Communications Commission (filed Dec. 23, 2004); Letter from Thomas Gutierrez, counsel for Aloha, to Marlene H. Dortch, Secretary, Federal Communications Commission (filed Jan. 7, 2005); Letter from Matthew S. DelNero, counsel for MSTV, to Marlene H. Dortch, Secretary, Federal Communications Commission (filed Jan. 13, 2005). Among the issues discussed in these *ex partes*, MSTV argues that indoor mobile device operation within the television broadcast spectrum, such as that proposed by Aloha to communicate with Aloha's proposed transmitter sites, can cause both analog and digital television receivers to go blank on all channels. Letter from Matthew S. DelNero, counsel for MSTV, to Marlene H. Dortch, Secretary, Federal Communications Commission (filed Dec. 6, 2004). MSTV includes a study prepared by the Communications Research Centre Canada, which MSTV also filed in a pending proceeding regarding unlicensed devices. *See* Joint Comments of the Association for Maximum Service Television, Inc. and the National Assocation of Broadcasters in ET Docket Nos. 04-186, 02-380 (filed Nov. 30, 2004); *see also* Unlicensed Operation in the TV Broadcast Bands, Additional Spectrum for Unlicensed Devices Below 900 MHz and in the 3 GHz Band, ET Docket Nos. 04-186, 02-380, *Notice of Proposed Rulemaking*, 19 FCC Rcd 10018 (2004). For purposes of this proceeding, we note that the issue MSTV raises is not relevant to whether we grant or deny Aloha's request for waiver because Aloha has sought waiver of section 27.60 only for its proposed base stations providing downstream operations on channel 59, not for any indoor mobile devices providing a return path on another frequency. *See also* fn 3, *supra*.

[16] Waiver Request at 1, citing 47 C.F.R. § 27.60(b)(1)(iii).

[17] *Id.* Section 27.60(b)(1) establishes four methods to demonstrate compliance with the Commission's TV/DTV protection requirements. *See* 47 C.F.R. § 27.60(b)(1). The licensee must select one method and accordingly must obtain Commission approval. In general, these methods are: (1) meet established geographic separations; (2) when station parameters are greater than those indicated in the tables, calculate geographic separation in accordance with the required D/U ratio; (3) submit an engineering study justifying a proposed geographic separation based on the actual parameters of the proposed station and the actual parameters of the TV/DTV station requiring protection; or (4) obtain written concurrence from the TV/DTV station. 47 C.F.R. § 27.60(b)(1)(i)-(iv).

[18] Access Spectrum Comments at 2-3 n.7; Corr Comments at 3; Flarion Comments at 3; Motorola Comments at 2; Coalition Comments at 2.

granting a similar waiver to Access Spectrum, LLC.[19] The Bureau clarified that whenever an engineering showing fails to demonstrate full compliance with the required D/U protection ratios specified in section 27.60(a), a waiver is necessary.[20] The Bureau added that the engineering study must be submitted electronically along with a Form 601 application for all such authorizations.[21] Finally, the Bureau clarified, as noted above, that compliance with section 27.60(a) requires that the minimum D/U ratio be maintained everywhere within the hypothetical Grade B contour of an adjacent channel analog TV station, not just at the contour's edge.[22] Accordingly, consistent with the Access Spectrum decision, we disagree with the commenters arguing that application and waiver should not be necessary, and find that Aloha's request for waiver is properly filed.

B. Aloha's Waiver Request and Engineering Statement

5. We must determine whether grant of the requested waiver is appropriate under the waiver standard set forth in section 1.925(b)(3).[23] Under this standard, we may grant a waiver if it is shown that: "(i) The underlying purpose of the rule(s) would not be served or would be frustrated by application to the instant case, and that a grant of the requested waiver would be in the public interest; or (ii) In view of unique or unusual factual circumstances of the instant case, application of the rule(s) would be inequitable, unduly burdensome or contrary to the public interest, or the applicant has no reasonable alternative."[24]

6. Aloha requests waiver pursuant to both of the waiver standards described above.[25] First, Aloha asserts that a waiver would be consistent with the underlying purpose of the rule. According to Aloha, "section 27.60 is designed to foster the public interest by permitting the wireless spectrum at issue to be utilized to the full extent possible while protecting incumbent

[19] Access Spectrum, LLC Request for Waiver of Section 27.60, *Memorandum Opinion and Order*, DA 04-2527 (WTB rel. Aug. 12, 2004) (*Access Spectrum Order*).

[20] *Id.* at para. 9.

[21] *Id.* at para. 10.

[22] *Id.* at para. 2.

[23] We note that MSTV argues that under Section 0.331 of the Commission's rules, the Bureau lacks the authority to act on Aloha's Waiver Request. MSTV Reply Comments at 10. Section 0.331 establishes that the Bureau does not have the authority to act on petitions that present "new or novel questions of law or policy which cannot be resolved under outstanding Commission precedents and guidelines." 47 C.F.R. § 0.331(a)(2). According to MSTV, this case is distinguishable from a waiver previously granted to Access Spectrum, because "Aloha's proposed operation poses considerably more danger to the viewing public than did that of Access Spectrum." MSTV Reply to Response at 7. Aloha argues that the question of whether Aloha is compliant with Section 27.60, and whether waiver is justified due to a lack of compliance, is the kind of issue that the Bureau routinely resolves under its delegated authority. Aloha Rebuttal Comments at 2. We agree with Aloha and find that the Bureau has previously acted on requests in various radio services for waiver of its interference protection criteria. Like the Bureau's decision in the Access Spectrum case, the relief granted is limited to the specific parameters in this case involving a small number of transmitter sites in a single market. We also disagree with MSTV that there will be considerably more danger to the viewing public than in Access Spectrum, given the short distances of possible interference from Aloha's proposed transmitters and the strict conditions placed on Aloha to ensure that no new interference occurs.

[24] 47 C.F.R. § 1.925(b)(3).

[25] Waiver Request at 7-9.

broadcasters."[26] Aloha argues that the underlying purpose of the rule would be frustrated if waiver were denied, as its spectrum would go relatively unused.[27] Second, Aloha asserts that there are unique and unusual circumstances that would cause rigid application of section 27.60 to be inequitable and contrary to the public interest. Aloha argues that its design incorporates unique channelization and self-imposed guard bands, and the public interest would be served by a grant of waiver because Aloha's service would significantly expand broadband access for rural, small business and public safety entities.[28] Aloha also argues that it would be inequitable to deny it a waiver because Aloha bid for, and paid for, its license.[29]

7. In response, MSTV argues that Aloha's Waiver Request fails under the first of the two waiver standards in section 1.925 because the sole purpose of section 27.60 is to protect incumbent broadcasters from interference, and denying Aloha's Waiver Request would actually uphold the purpose of the rule rather than frustrate it.[30] With respect to the second waiver standard, MSTV argues that Aloha has not alleged any circumstances that would result in the application of section 27.60 being inequitable, unduly burdensome or contrary to the public interest.[31] MSTV notes that Aloha purchased its spectrum with full knowledge of encumbrances in the lower 700 MHz band, therefore Aloha's inability to comply with section 27.60 and thus make use of its license does not demonstrate inequity or undue burden.[32]

8. Under section 1.925, we may grant a waiver if it is shown that the standards of either section 1.925(b)(3)(i) or (ii) are met. In this case, we find that Aloha has satisfied the first waiver standard of section 1.925, and that circumstances warrant a grant of the requested waiver. As discussed below, we base this decision on both a public interest analysis and an assessment of the possible impact to KWBA viewers. First, we find it in the public interest for Aloha to offer a new innovative broadband service option to the Tucson area. Broadband services benefit schools, libraries, businesses, public safety entities and households by increasing access to information, educational and business opportunities, and entertainment. For example, broadband can deliver distance learning opportunities, remote connectivity to corporate networks, and a multitude of entertainment offerings such as movies, sports and shopping. Multiple broadband providers in an area lead to diversity in the number, types, and pricing of these services. In its petition, Aloha asserts that over 73 percent of metropolitan Tucson has DSL and high-speed cable Internet access. However, Aloha estimates that there are 212,000 residents and 132,000 small business employees who have only one broadband provider option.[33] The Commission envisioned, when allocating the Lower 700 MHz Band, that the addition of a fixed wireless provider like Aloha would increase competition in broadband service with existing DSL and

[26] *Id.* at 8.

[27] *Id.* at 8-9.

[28] *Id.* at 4, 9.

[29] *Id.* at 9.

[30] MSTV Reply to Response at 5.

[31] *Id.*

[32] *Id.* at 6.

[33] Petition at 4.

cable providers.[34] Aloha's fixed wireless service may supply a broadband option that DSL and cable cannot otherwise emulate, due to the infrastructure requirements of a non-wireless pipeline.[35]

9. In addition, we agree with Aloha that the underlying purpose of section 27.60 is to permit 700 MHz operations where it is demonstrated that viewers will not lose reception of co-channel or adjacent channel TV/DTV stations. Aloha indicates that it will minimize the potential for interference to TV viewing through careful site selection and frequency planning, and commits to cure any instances of actual interference to KWBA's viewers at its own expense.[36] Aloha's proposed stations will operate on frequencies that are at least 3 MHz removed from the upper edge of channel 58's 6 MHz space.[37] Further, Aloha claims that it has attempted to locate all of its transmitters away from residential neighborhoods.[38] Aloha concedes that at 3 of its 7 proposed sites, the lower broadband channel of each site's pair, though at least 3 MHz removed from KWBA's channel space, is within potential interfering distance to a small number of residences.[39] Aloha, however, assures that if the interference cannot be corrected, operation will be restricted to the other broadband channel that is at least 4.25 MHz removed from KWBA's channel space, resulting in no interference to any residences.[40]

10. The record reflects the parties' disagreement as to the number of households potentially affected by Aloha's proposed operations, which ranges from Aloha's estimate of 22 households to MSTV's estimate of 2,143 households.[41] We note that these impacted household figures vary, in part, because each party makes different adjustments to the "free space" analysis submitted by Aloha to justify locating transmitters within KWBA's Grade B contour. For example, Aloha makes an adjustment[42] to its analysis to estimate the amount by which the undesired (Aloha) signal is attenuated as a result of passing through one or more man-made structures before reaching a TV receive antenna. According to MSTV, this adjustment understates the size of the areas (and corresponding households) that could potentially experience interference from Aloha's proposed operations.[43] In contrast, MSTV includes an

[34] *See* Service Rules for the 746-764 and 776-794 MHz Bands, and Revisions to Part 27 of the Commission's Rules, WT Docket No. 99-168, *First Report and Order*, 15 FCC Rcd 476, 479 para. 4 (2000).

[35] *See also* Access Spectrum Comments at 1-2; Flarion Comments at 2-3; Motorola Comments at 1, 3; Coalition Comments at 3 (arguing that grant of waiver will allow Aloha to deliver broadband to underserved rural residences, small businesses and emergency personnel).

[36] *See* Waiver Request at 7.

[37] *Id*.

[38] *Id*.

[39] Aloha Engineering Study at 14-15, Figure 11. Specifically, Aloha indicates that there are 5, 2 and 15 residences within a potential range of interference to Aloha's proposed Site Nos. 3, 4 and 6, respectively. *Id.*

[40] *Id.* at 14.

[41] Aloha Engineering Study at 14-15, Figure 11; MSTV Reply Comments, Engineering Statement at 2.

[42] Aloha included a 10 dB building penetration adjustment to its free-space calculation.

[43] MSTV Reply Comments, Engineering Statement at 2.

upward adjustment to account for time variability of Aloha's signal.[44] Aloha maintains that this adjustment results in an overstating of the number of households potentially subject to interference, and estimates that inclusion of this factor alone accounts for approximately 76 percent of the difference between Aloha's and MSTV's estimates of the number of households that could be impacted by interference.[45]

11. We generally find that the interference analysis methodology used by Aloha is acceptable for estimating the impact of its operations on broadcast TV service. This methodology uses an approach that examines the desired-to-undesired (D/U) signal ratios of the KWBA and Aloha signals as permitted under Section 27.60 (b)(1)(ii) of the rules.[46] Under this approach, the Aloha signal would not be predicted to cause interference if the ratio of the KWBA signal to Aloha's signal is above an acceptable level. Aloha's approach uses the findings of the Commission's 1986 tests, published in the Stanks Report, regarding the susceptibility of UHF TV reception to interference from land mobile devices.[47] In order to determine the expected signal strength of KWBA, Aloha used the Longley-Rice v1.2.2 algorithms to predict TV coverage from the KWBA transmitter site. Aloha also generated the Longley-Rice plot using the conservative F(90,90) probability level for KWBA signal availability, *i.e.*, signals that can be received at 90% of locations, 90% of the time, and an indoor receive antenna height of 6 feet above ground to provide a conservative prediction of received TV signal strength. Based on the Stanks Report, Aloha then calculated the maximum allowable signal strengths and corresponding distances from its base stations that these signals are predicted to occur using the free-space loss formula. The free-space loss formula is appropriate for estimating the signal strength of signals that travel a relatively short distance with very few intervening structures or terrain obstacles.

12. We find it reasonable that Aloha included a 10 dB factor for signal attenuation to adjust for penetration of structures within which TV receivers would be located. However, we note that Aloha did not include in its study an analysis which affords a 10 dB attenuation for KWBA's signal. We believe that a broadcast signal received in those same indoor locations could be expected to be similarly attenuated, and therefore a corresponding factor of attenuation would also be appropriate for the TV signal. We see no basis for including an upward adjustment of Aloha's signal to account for time variability as argued by MSTV. Given the short propagation distances over which the Aloha signal could potentially cause interference to KWBA's TV service, time-fading would not generally be expected to occur. Accordingly, we have conducted an independent engineering analysis[48] assuming the following: 1) Longley-Rice

[44] MSTV Reply Comments, Engineering Statement at 2-4. Time variability is a change in signal strength over time due to fading. MSTV included a 6 dB adjustment for time variability to Aloha's free space analysis.

[45] Aloha Response to Reply at 11-12.

[46] 47 C.F.R. § 27.60 (b)(1)(ii).

[47] *See* FCC Office of Engineering and Technology Report, OET TM87-1, "Receiver Susceptibility Measurements Relating to Interference Between UHF Television and Land Mobile Radio Services (Project No. EEB-84-4)" developed by Daniel J. Stanks of the Commission, April 1986 (Stanks Report).

[48] *See* FCC Office of Engineering and Technology Bulletin No. 72, "The ILLR Computer Program," July 2, 2002 for a description of the Longley-Rice v1.2.2 algorithms. With respect to waiver requests of this nature, we consider the F(90,90) probability level for availability of a TV signal to be appropriate at areas within a station's Grade B (continued....)

methodology using F(90,90) probability to determine KWBA's signal level; 2) an indoor TV receive antenna height of 6 feet above ground; 3) a 10 dB loss for building penetration for KWBA's signal; and 4) free-space propagation using the D/U ratios as determined in the Stanks Report and a 10 dB loss for building penetration of Aloha's signal. We find that the distances from the proposed Aloha transmitter sites within which there is potential for interference to occur are relatively short, ranging from 246 meters to 313 meters.[49] Given these short distances, the number of households that could potentially be affected by operation of any of the base stations addressed in Aloha's waiver request is very low,[50] and the sum of the number of households affected at all seven of the Aloha sites would be a very small percentage of the households in the Tucson, AZ, DMA.[51]

13. We further find that the number of KWBA's viewers that could be affected by operation of Aloha's proposed base stations is sufficiently small that any interference that might occur could be corrected by Aloha by providing those viewers with filtering or other solutions with a result that there would be no net loss of service from KWBA. On this basis, we conclude that operation of Aloha's service in accordance with the plan set forth in its application and waiver request, including the commitment to cure any interference that might occur, would not reduce service to television viewers from KWBA and that granting Aloha's waiver request would serve the public interest by providing an additional option for broadband service in the Tucson area. In order to advise the public of the likely source of any new interference, we also believe that it is important that Aloha notify residents within the area of potential interference around each base station of that potential prior to commencing operations of the individual base stations. Given the small size of these areas, we do not believe that a requirement for such notification will be unduly burdensome to Aloha.

14. For the reasons discussed herein, we grant Aloha's waiver request conditioned on the requirements that Aloha: 1) operate its base stations in accordance with its application and accompanying waiver request; 2) prior to commencing operations, provide notice to potentially affected KWBA viewers, *i.e.* those within the ranges computed using the methodology set forth above, advising them that their reception of KWBA service could be affected by Aloha's operations and providing them with contact information to obtain resolution of interference they may experience from Aloha's operations; and 3) cure any instances of actual interference to service to KWBA's viewers that may occur at its own expense in accordance with the commitment set forth in Aloha's waiver request. Any reported and verified interference from

(...continued from previous page)
contour. The program was adjusted to calculate the F(90,90) KWBA TV signal because the ILLR program only calculates the F(50,90) signal.

[49] Our calculations using the methodology described above indicate that the potential for interference from Aloha's proposed transmitter sites extends out to the following distances (radii): Site 1: 292 m, Site 2: 246 m, Site 3: 313 m, Site 4: 279 m, Site 5: 275 m, Site 6: 309 m, Site 7: 285 m.

[50] Aloha has located their seven base stations largely in business and commercial areas; we therefore would not expect the potentially affected areas to be heavily populated.

[51] According to 2004 Nielsen estimates, there are 413,460 potential households viewing KWBA in the Tucson area. *See* Warren Communications News, Television and Cable Online Factbook, Television Volume, KWBA(WBN), Sierra Vista, AZ, Nielsen Circulation (report generated February 3, 2005).

operation of Aloha's service must be resolved promptly; unresolved interference may result in action by the Commission requiring Aloha to suspend operation of the offending transmitter until the interference is resolved.

IV. ORDERING CLAUSE

15. Accordingly, IT IS ORDERED that, pursuant to the authority in sections 1, 2, 4(i) and 4(j) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 152, 154(i) and 154(j), and section 1.925(b)(3)(i) of the Commission's rules, 47 C.F.R. § 1.925(b)(3)(i), the request for waiver by Aloha Partners, L.P. IS GRANTED, subject to the conditions set forth herein, and the Mobility Division is directed to process file no. 0001777981 consistent with this Memorandum Opinion and Order.

FEDERAL COMMUNICATIONS COMMISSION

John B. Muleta, Chief
Wireless Telecommunications Bureau